Serial No. 09/020,716 Group Art Unit: 1638

- 95. (Amended) A method for increasing the level of lysine or a sulfur-containing amino acid in a cereal plant seed, the method comprises transforming a cereal plant cell with an expression cassette and regenerating a transformed cereal plant to produce a transformed cereal plant seed, wherein the expression cassette comprises a seed endosperm-preferred promoter operably linked to a plant polynucleotide encoding a polypeptide, and wherein expression of the polypeptide increases the level of lysine or a sulfur-containing amino acid in the transformed cereal plant seed compared to a corresponding non-transformed cereal plant seed.
- 96. (Amended) The method of claim 95 wherein the seed endosperm-preferred promoter is heterologous to the plant polynucleotide.
- 97. (Amended) A transformed cereal plant seed which has been transformed with a plant polynucleotide to express a polypeptide in endosperm of the transformed cereal plant seed, wherein the transformed cereal plant seed exhibits an elevated level of lysine or a sulfur-containing amino acid compared to a corresponding non-transformed cereal plant seed.
- 101. (Amended) The transformed cereal plant seed according to claim 100 wherein the amount of lysine or sulfur-containing amino acid in the transformed cereal plant seed is increased at least about 15 percent by weight compared to a corresponding non-transformed cereal plant seed.
- 102. (Amended) The transformed cereal plant seed according to claim 101 wherein the amount of lysine or sulfur-containing amino acid in the transformed cereal plant seed is increased at least about 20 percent by weight compared to a corresponding non-transformed cereal plant seed.

Serial No. 09/020,716 Group Art Unit: 1638

- 104. (Amended) An expression cassette comprising a seed endosperm-preferred promoter operably linked to a plant polynucleotide encoding a polypeptide having at least about 7 mole % lysine or at least about 6 mole % of a sulfur containing amino acid.
- 105. (Amended) The expression cassette of claim 104 wherein the seed endosperm-preferred promoter is heterologous to the plant polynucleotide.
- 106. (Amended) A seed from a transformed cereal plant which has been transformed with a plant polynucleotide to express a polypeptide in the endosperm of the transformed cereal plant seed, wherein the transformed cereal plant seed exhibits an elevated level of lysine or a sulfur-containing amino acid compared to a corresponding non-transformed cereal plant seed.
- 107. (Amended) A method for increasing the level of lysine or a sulfur-containing amino acid in a maize seed, the method comprises transforming a maize cell with an expression cassette and regenerating a transformed maize plant to produce a transformed maize seed, wherein the expression cassette comprises a seed endosperm-preferred promoter operably linked to a plant polynucleotide encoding a polypeptide, and wherein expression of the polypeptide increases the level of lysine or a sulfur-containing amino acid in seed of the transformed maize plant compared to seed of a corresponding non-transformed maize plant.
- 108. (Amended) The method of claim 107 wherein the seed endosperm-preferred promoter is heterologous to the plant polynucleotide.